

EXHIBIT A
South Fork Trinity Road Decommissioning
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Trinity County Resource Conservation District will:

1. Improve spawning and rearing habitat by reducing coarse/fine sediment delivery and improving riparian canopy for Chinook salmon, and steelhead trout in a selected section of Rattlesnake, Smoky and Upper Hayfork creeks tributary to South Fork Trinity River in Trinity County. The objective is to save 8,075 cubic yards of sediment from delivery by dispersing road runoff on 7.78 miles of road, reestablishing drainage patterns at 29 stream crossings, swales, and springs.
2. Conduct work on South Fork Trinity Watershed. The project is located in Township 01S, Range 08E, Sections 4,8 and 9; Township 29N, Range 12W, Sections 5, 10, 11, and 15; Township 30N, Range 12W, Sections 29 and 30; Township 28N, Range 12W, Section 2; Township 29N, Range 11W, Sections 22 and 27 of the Naufus Creek, Dubakella Mountain, Forest Glen, Smoky Creek and Pony Buck Peak 7.5 Minute U.S.G.S. Quadrangles, as depicted in Exhibit B, Project Location Map, which is attached and made part of this agreement by this reference.
3. Decommission 7.78 miles of road thereby saving 8,075 cubic yards of sediment from delivery to Rattlesnake, Smoky and Upper Hayfork creeks. Fill slope and stream crossing fill from approximately 29 stream crossings, swales and springs will be excavated and stored in stable locations. The following treatments will be implemented where appropriate:
 - Excavation of in-place stream crossings at locations where roads or landings were built across stream channels. This includes complete excavation of the fill, including the culvert or Humboldt log crossing so the original stream bed and side slopes are exhumed. A stream crossing excavation includes removing the culvert and the underlying and the adjacent fill material. Complete excavation of stream crossing fills, includes 100 year flood channel bottom widths and 2:1 or otherwise stable side slopes. When possible the excavated spoil will be stored at nearby stable locations where it will not erode. If there is a limited amount of stable storage locations at the excavation site the crossing fill material will be hauled off-site for storage.
 - Road surface treatments: 1) in-place out-sloping or the excavation of unstable side cast material that could fail and deliver sediment to a stream along the outside edge of a road prism or landing and the replacement of the spoil on the roadbed against the corresponding adjacent cutbank, or in close proximity of the site; 2) exported out-sloping which involves not placing the material against the cutbank so the material is end hauled to a spoil disposal site; 3) installation of cross drains or deep water bars at 50, 75, 100 or 200 foot intervals or as necessary at springs and seeps to disperse road

surface runoff. The cross road drains provide road surface drainage and prevent the collection of concentrated runoff on the former roadbed.

- Seeding and mulching of all exposed soils which may deliver sediment to a stream. Woody debris will be concentrated on finished slopes adjacent to stream crossings. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.
4. Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized for reimbursement under the terms of this agreement. Reimbursement will not be authorized for work done to improve aesthetics only.
 5. Notify the Grant Manager a minimum of five working days before any fish bearing stream reaches are dewatered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:
 - Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
 - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
 - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.
 - The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
 - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
 6. All road upgrading or decommissioning will be done in accordance with techniques described in the *Handbook for Forest and Ranch Roads*, (PWA, 1994c.) and the *California Salmonid Stream Habitat Restoration Manual*, Third Edition, Volume II, Part X, January 2004. All road decommissioning and upgrade sites and techniques shall be approved by the Grant Manager before any equipment work takes place.
 7. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*, Flosi et al and the *California Salmonid Stream Habitat Restoration Manual*, Third Edition, Volume II, Part XI, January 2004.

8. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
9. An annual report will be submitted each year, no later than November 15, detailing the work completed that field season. The annual report will include, but no necessarily be limited to the following where applicable:
 - Construction start and end dates
 - Percentage of the project completed in total to date
 - Dewatering and fish relocation data on DFG data sheet (to be provided by the DFG Grant Manager upon request)
 - Construction start and end dates for work to be implemented the following season

The annual report will also include on a site by site basis

- Road length segment decommissioned per road segment
 - Sediment spoils volume estimate per road segment
 - Upslope stream crossings decommissioned (not for fish passage)
 - Sediment volume prevented from entering the stream per crossing
 - Sediment spoils volume estimate per crossing
 - Upslope area treated (sq ft) (landslides, bank stabilization)
10. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 31 and again each year until completed. The report shall include, but not necessarily be limited to the following information:
 - Grant number
 - Project name
 - Geographic area (e.g., watershed name)
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
 - Project start and end dates and the number of person hours expended
 - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
 - Expected benefits to anadromous salmonids from the project
 - Labeled before and after photographs of restoration activities and techniques
 - Specific project access using public and private roads and trails, with landowner name and address

- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HU) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
 - Design spec achieved
 - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Upland Habitat Projects (HU)

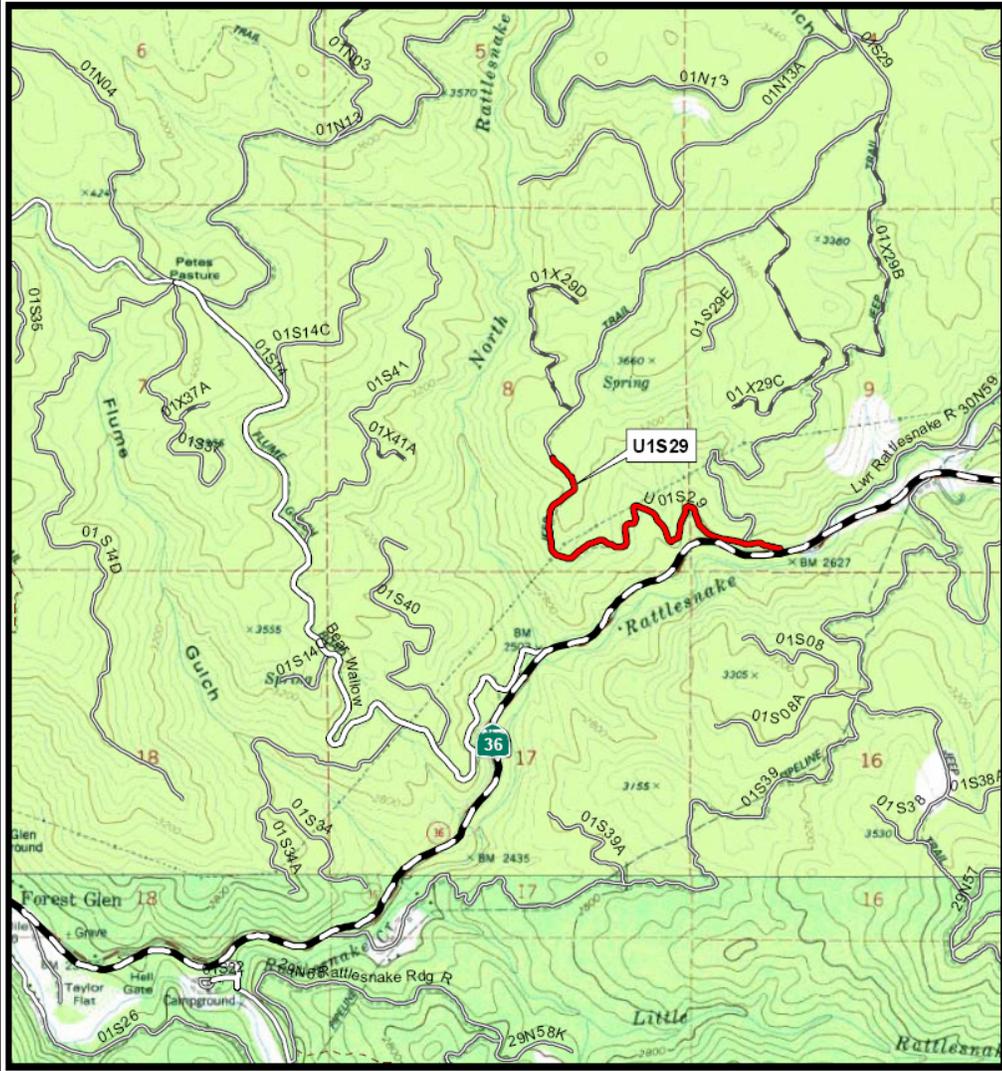
- Number of actions (road decommission / upgrade)
- Total acres of upslope area treated.
- Total miles of road treated.
- Miles of road treated for road drainage system improvements.
- Miles of road decommissioned.
- Number of cubic yards of sediment saved from entering the stream.

Riparian Habitat Projects (HR, HS)

- Miles of stream treated overall, count stream reach only once.
- Miles of riparian stream bank treated, measure both sides of the bank.
- Total acres of riparian area treated.
- Acres of riparian area planted.
- Species scientific names of plants planted.

11. The Trinity County Resource Conservation District will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the South Fork Trinity Road Decommissioning project.

Exhibit B
South Fork Trinity Road Decommissioning
Project Location Map 1
T01S, R08E, S4, 8 & 9 Naufus Creek Quad
Humboldt County



South Fork Trinity Road Decommissioning U1S29

- Project Areas
- Roads**
 - Highway
 - Paved
 - Rocked
 - Native
 - Decommission
 - Trail/Undrivable

Quad Name: Naufus Creek
 Stream Name: Rattlesnake Creek Watershed

Vicinity & Location Map

Prepared By
 Trinity County
 Revisions: 2009_11a-5.mxd
 May 8, 2009

Scale: 1 = 24,000
 SF_Decom1_2009_11a-5.mxd

0.25 0 0.25 0.5 Miles
 1,200 0 1,200 2,400 Feet
 0.25 0 0.25 0.5 Kilometers

Exhibit B
South Fork Trinity Road Decommissioning
Project Location Map 2
 T30N, R12W, S29 & 30; T29N R12W S5; Naufus Creek and Dubakella Mountain Quads
 Trinity County

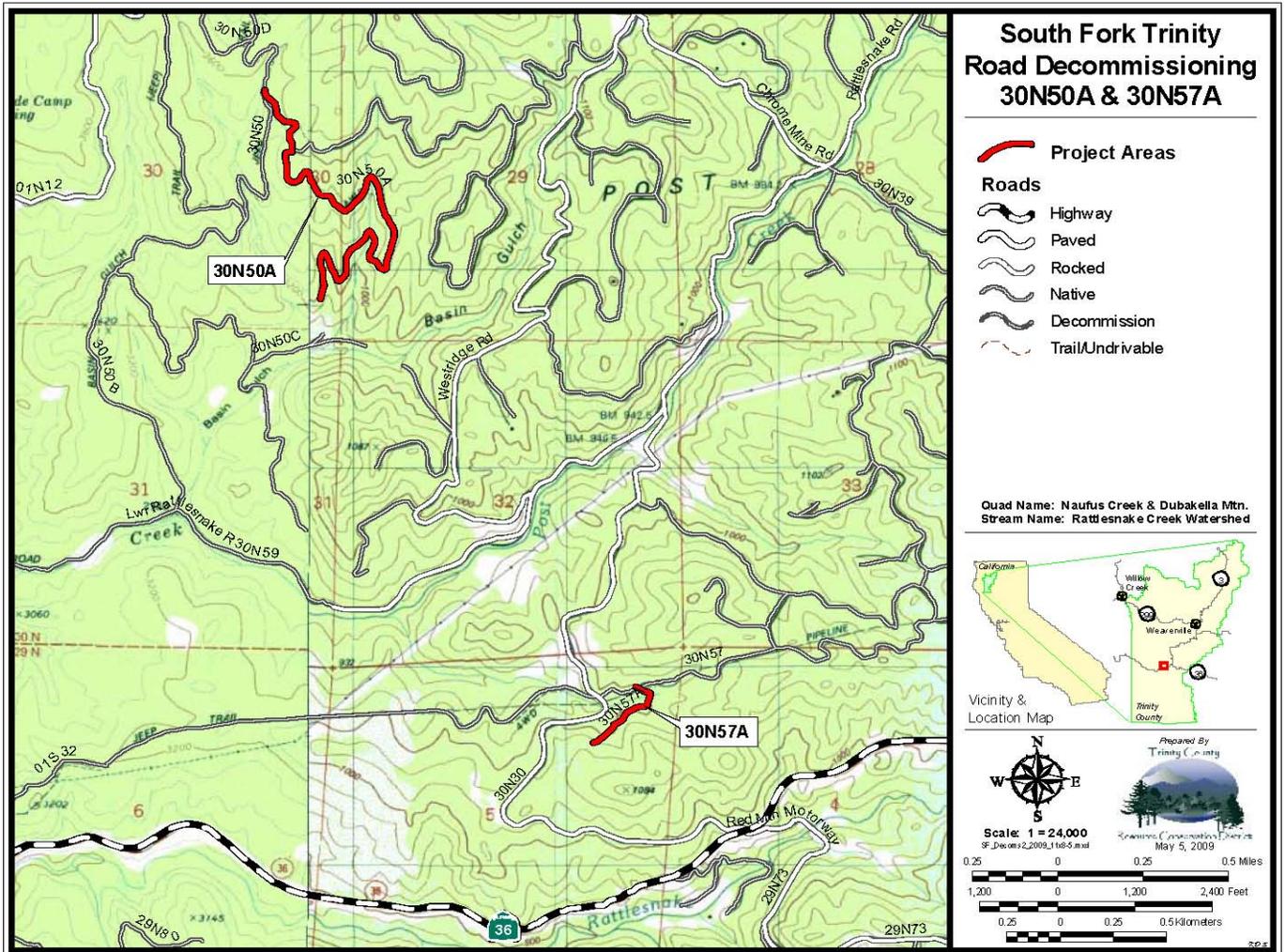


Exhibit B
 South Fork Trinity Road Decommissioning
 Project Location Map 4
 T29N, R12W, S10, 11 & 15, Dubakella and Smoky Creek Quads
 Trinity County

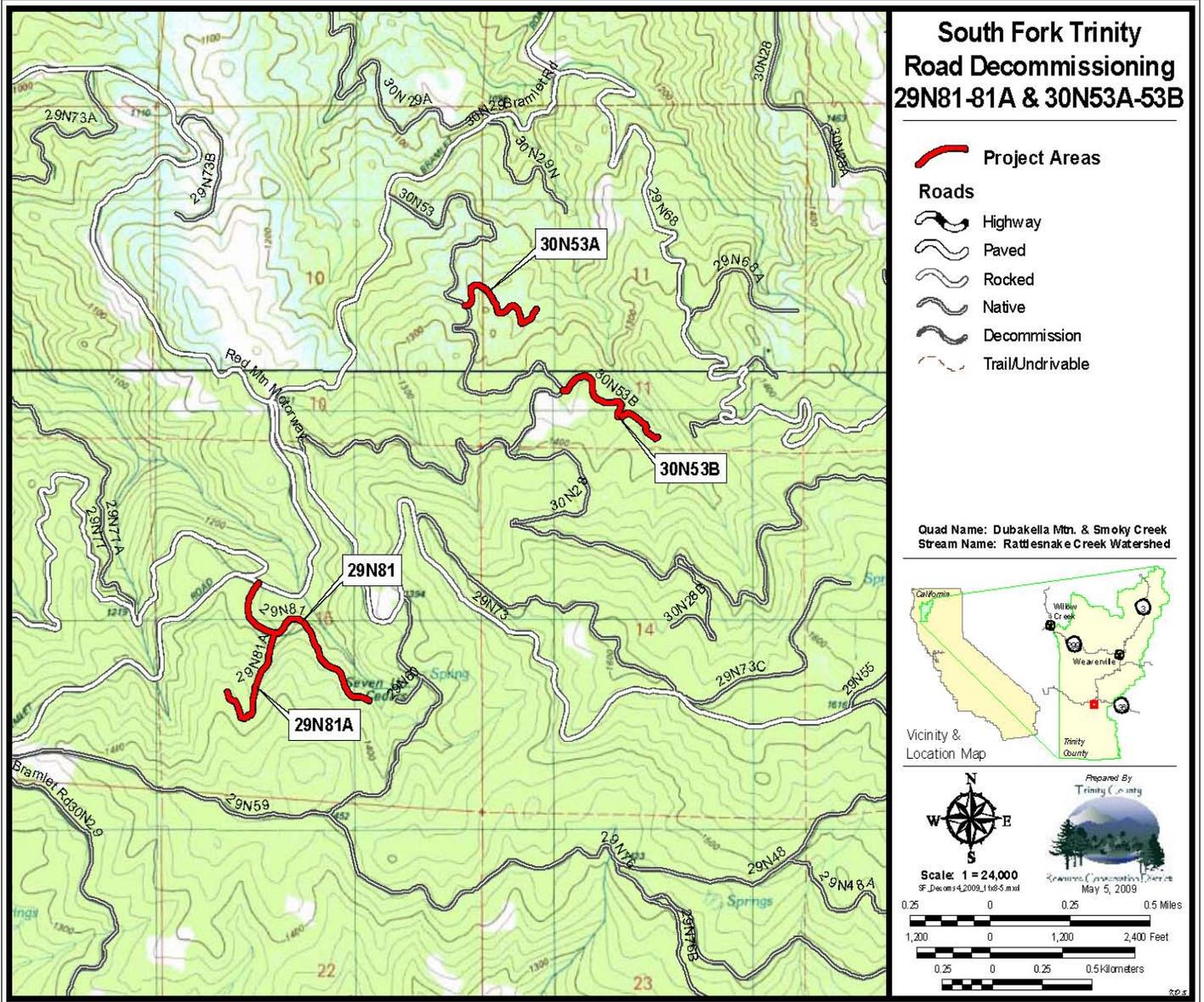


Exhibit B
South Fork Trinity Road Decommissioning
Project Location Map
T28N, R12W, S2, Smoky Creek Quad
Trinity County

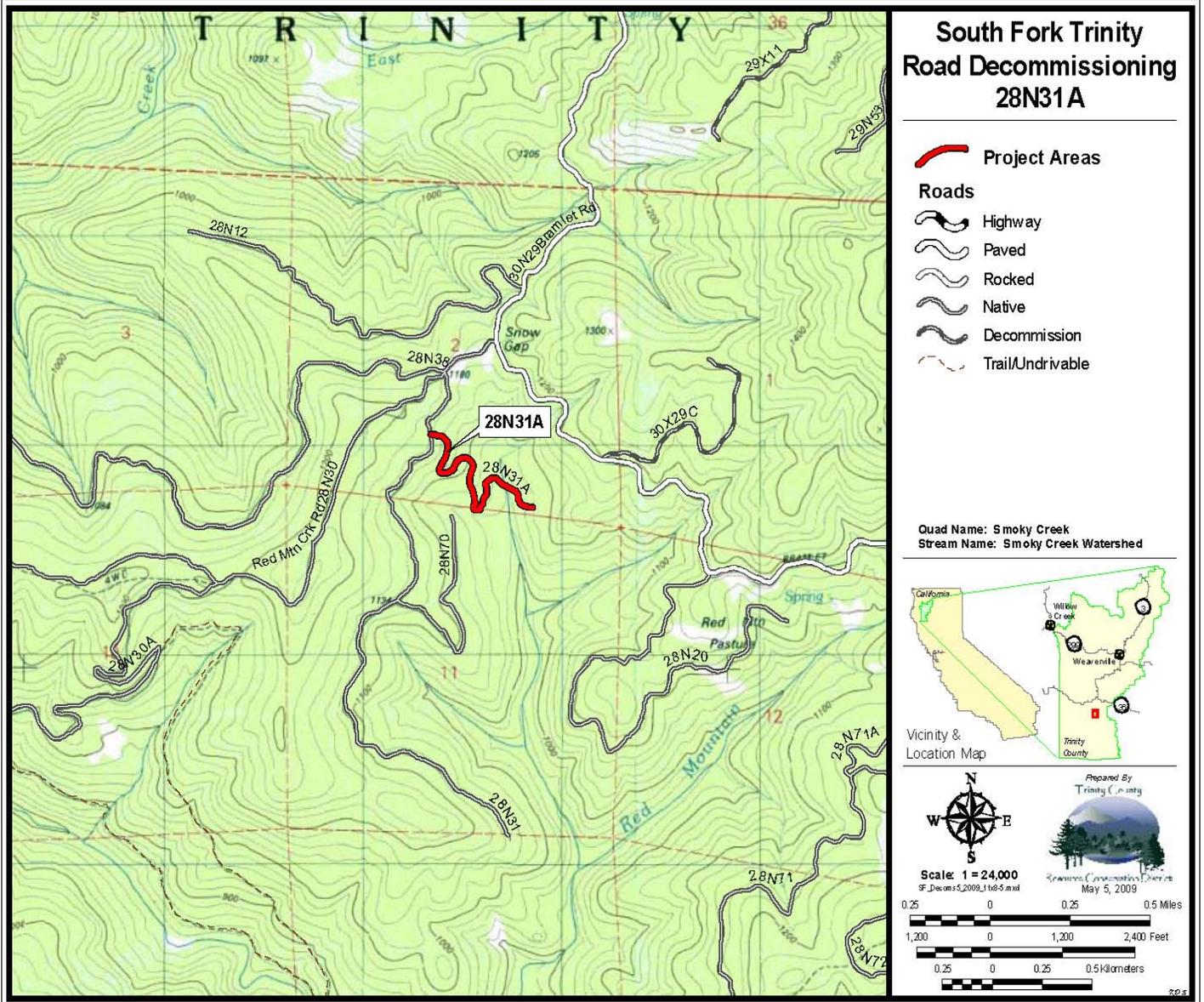
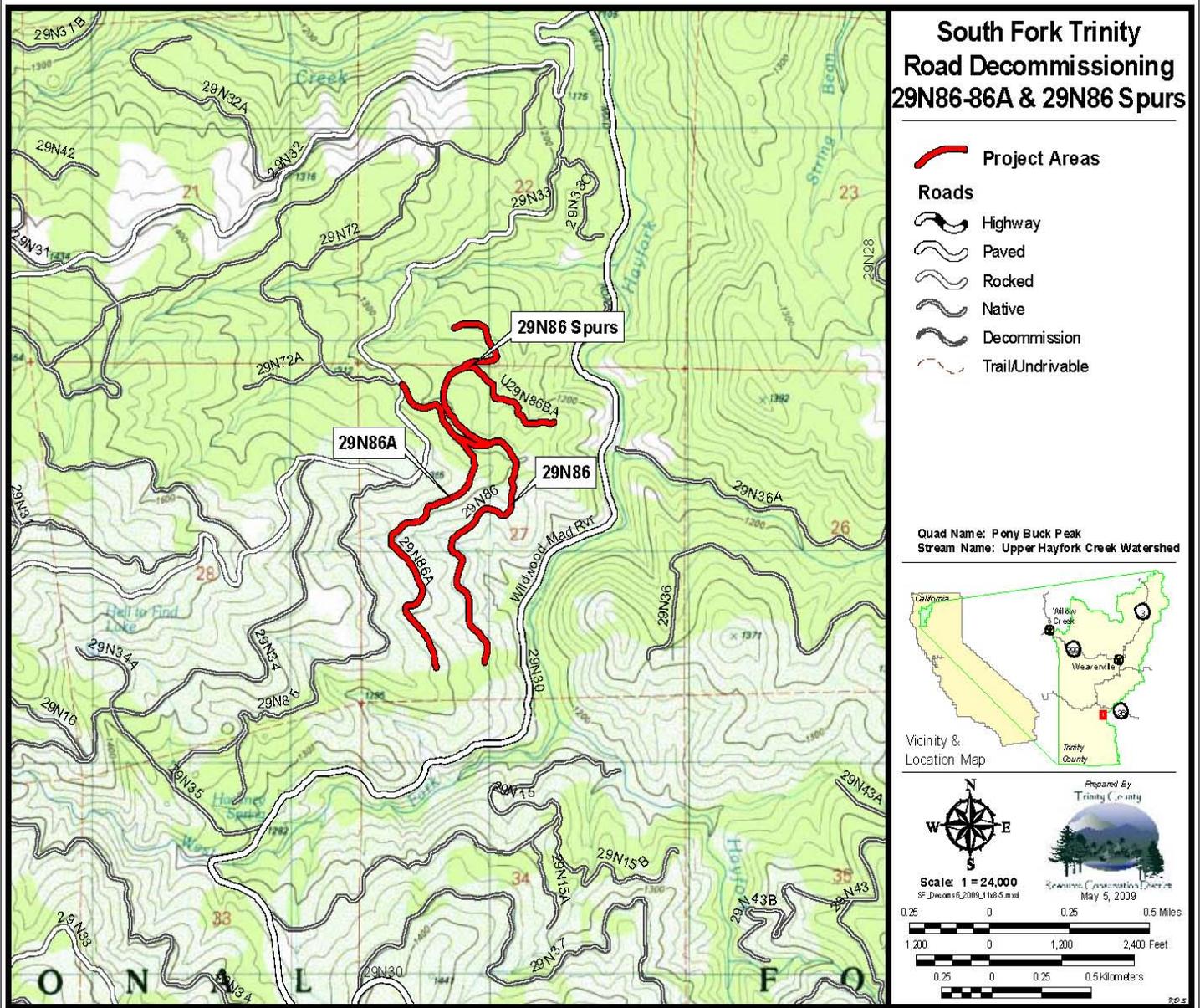


Exhibit B
South Fork Trinity Road Decommissioning
Project Location Map 5
T29N, R11W, S22 & 27, Pony Buck Peak Quad
Trinity County



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723333 South Fork Trinity Road Decommissioning

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Brandegee's eriastrum <i>Eriastrum brandegeeeae</i>	PDPLM03020			G3	S3.2	1B.2
2 Briggs' leptonetid spider <i>Calileptoneta briggsi</i>	ILARAU6010			G1	S1	
3 California globe mallow <i>Iliamna latibracteata</i>	PDMAL0K040			G3	S2.2	1B.2
4 California wolverine <i>Gulo gulo</i>	AMAJF03010		Threatened	G4	S2	
5 Central Valley spring-run chinook salmon ESU <i>Oncorhynchus tshawytscha spring-run</i>	AFCHA0205A	Threatened	Threatened	G5	S1	
6 Koehler's stipitate rock-cress <i>Arabis koehleri var. stipitata</i>	PDBRA060Z2			G3T3	S1.3	1B.3
7 Leech's chaetarthrian water scavenger beetle <i>Chaetarthria leechi</i>	IICOL5T010			G1?	S1?	
8 Mad River fleabane daisy <i>Erigeron maniopotamicus</i>	PDASTE1050			G1	S1.2	1B.2
9 Mt. Tedoc leptosiphon <i>Leptosiphon nuttallii ssp. howellii</i>	PDPLM090V4			G5T1	S1.3	1B.3
10 Natural Bridge megomphix <i>Megomphix californicus</i>	IMGASB2010			G1G2	S1S2	
11 Niles' harmonia <i>Harmonia doris-nilesiae</i>	PDAST650L0			G2	S2.1	1B.1
12 Oregon fireweed <i>Epilobium oreganum</i>	PDONA060P0			G2	S2.2	1B.2
13 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
14 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
15 Sonoma tree vole <i>Arborimus pomo</i>	AMAFF23030			G3	S3	SC
16 South Fork Mtn. lupine <i>Lupinus elmeri</i>	PDFAB2B1G0			G1	S1.2	1B.2
17 Stebbins' harmonia <i>Harmonia stebbinsii</i>	PDAST650K0			G2	S2.2	1B.2
18 Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010			G4	S2S3	SC
19 Tracy's eriastrum <i>Eriastrum tracyi</i>	PDPLM030C0		Rare	G1Q	S1.1	1B.2
20 Tracy's sanicle <i>Sanicula tracyi</i>	PDAPI1Z0K0			G3	S3.2	4.2
21 Trinity bristle snail <i>Monadenia infumata setosa</i>	IMGASC7080		Threatened	G2T2	S2	
22 Trinity shoulderband <i>Helminthoglypta talmadgei</i>	IMGASC2630			G1G3	S1S3	
23 Umpqua green-gentian <i>Swertia umpquaensis</i>	PDGEN050F0			G3Q	S2.2	2.2

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Common Name - Portrait
 723333 South Fork Trinity Road Decommissioning

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
25 Wawona riffle beetle <i>Atractelmis wawona</i>	IICOL58010			G1G3	S1S2	
26 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S2	
27 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S3	2.2
28 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2
29 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
30 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
31 hoary bat <i>Lasiurus cinereus</i>	AMACC05030			G5	S4?	
32 leafy-stemmed mitrewort <i>Mitella caulescens</i>	PDSAX0N020			G5	S4.2	4.2
33 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060			G5	S3	SC
34 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
35 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
36 pale yellow stonecrop <i>Sedum laxum ssp. flavidum</i>	PDCRA0A0L2			G5T3Q	S3.3	4.3
37 silver-haired bat <i>Lasionycteris noctivagans</i>	AMACC02010			G5	S3S4	
38 small groundcone <i>Boschniakia hookeri</i>	PDORO01010			G5	S1S2	2.3
39 small-flowered calycadenia <i>Calycadenia micrantha</i>	PDAST1P0C0			G2G3	S2S3.2	1B.2
40 southern torrent salamander <i>Rhyacotriton variegatus</i>	AAAAJ01020			G3G4	S2S3	SC
41 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
42 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
43 white beaked-rush <i>Rhynchospora alba</i>	PMCYP0N010			G5	S3.2	2.2
44 white-flowered rein orchid <i>Piperia candida</i>	PMORC1X050			G3	S3.2	1B.2
45 woolly meadowfoam <i>Limnanthes floccosa ssp. floccosa</i>	PDLIM02043			G4T4	S3.2	4.2

EXHIBIT A
Grass Valley Creek Gravel Supplementation Project
Statement of Work

Under direction of the Department of Fish and Game (DFG), and under the following conditions and terms, the Grantee will:

1. Improve spawning habitat by increasing habitat diversity for coho salmon, Chinook salmon and steelhead in a section of Grass Valley Creek, tributary to Trinity River in Trinity County. The objective of the project is to increase the amount of suitable spawning area by placing approximately 450 tons of gravel within a one mile section of the stream.
2. Conduct work on Grass Valley Creek, below Grass Valley Creek Reservoir, approximately 15 miles upstream from the confluence of the Trinity River. The project is located in Township 32N, Range 8W, Section 16 of the Shasta Bally 7.5 Minute U.S.G.S. Quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Habitat improvements will be accomplished by adding approximately 450 tons of 1"-6" washed gravel in Grass Valley Creek below Buckhorn Dam at several locations within a one mile section of stream. All gravel placement locations shall be pre-approved by the Department of Fish and Game Project Manager. Gravel shall be placed with no equipment entering the stream.
4. The Grantee will not proceed with on the ground implementation until all necessary permits and consultations are secured.
5. The transport and utilization of the placed gravel shall be monitored by grantee under the direction of Natural Resource Conservation Service (NRCS) and Department Fish and Game fisheries biologists in the fall and winter of 2011 and 2012.
6. Re-locate and map the locations of tracer gravels placed in the channel from prior years with PIT tags. This will be accomplished with in-kind services from NRCS, Bureau of Land Management (BLM) and Trinity River Restoration Program (TRRP).
7. Extend longitudinal profile of stream channel and inventory elements of channel geomorphology, such as bars, pools, depositional facies, bedrock controls, and debris jams, as needed to encompass the limits of tracer gravels immediately downstream of gravel placement sites.
8. Conduct surface pebble counts at strategic locations to quantify bed conditions and calibrate visual estimates of surface textures in areas that are both affected and not yet affected by recent gravel augmentations. Sampling locations will be mapped with sufficient accuracy that the measurements are repeatable.

9. Under the supervision of DFG and NRCS fisheries biologists, conduct redd counts and juvenile salmonid presence in areas affected by the gravel augmentation.
10. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
10. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*, Flosi et al.
11. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on a CD. If the project is not completed in the current year, the Grantee will submit a summary of the completed portion no later than December 1 and again each year until completed. The report shall include, but not necessarily be limited to the following information:
 - Grant number
 - Project name
 - Geographic area (e.g., watershed name)
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
 - Project start and end dates and the number of person hours expended
 - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
 - Expected benefits to anadromous salmonids from the project
 - Labeled before and after photographs of any restoration activities and techniques
 - Specific project access using public and private roads and trails, with landowner name and address
 - Complete as built project description
 - A monitoring report including the results of the PIT tag gravel relocation surveys; the longitudinal survey compared to the 2008 survey; the inventory of the elements of the channel geomorphology; the map and results of the pebble counts; and the data collected or field notes describing the results of the redd and juvenile salmonid counts.
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HI, HR, HS) (Report N/A to those that do not apply)

Habitat Projects: (all)

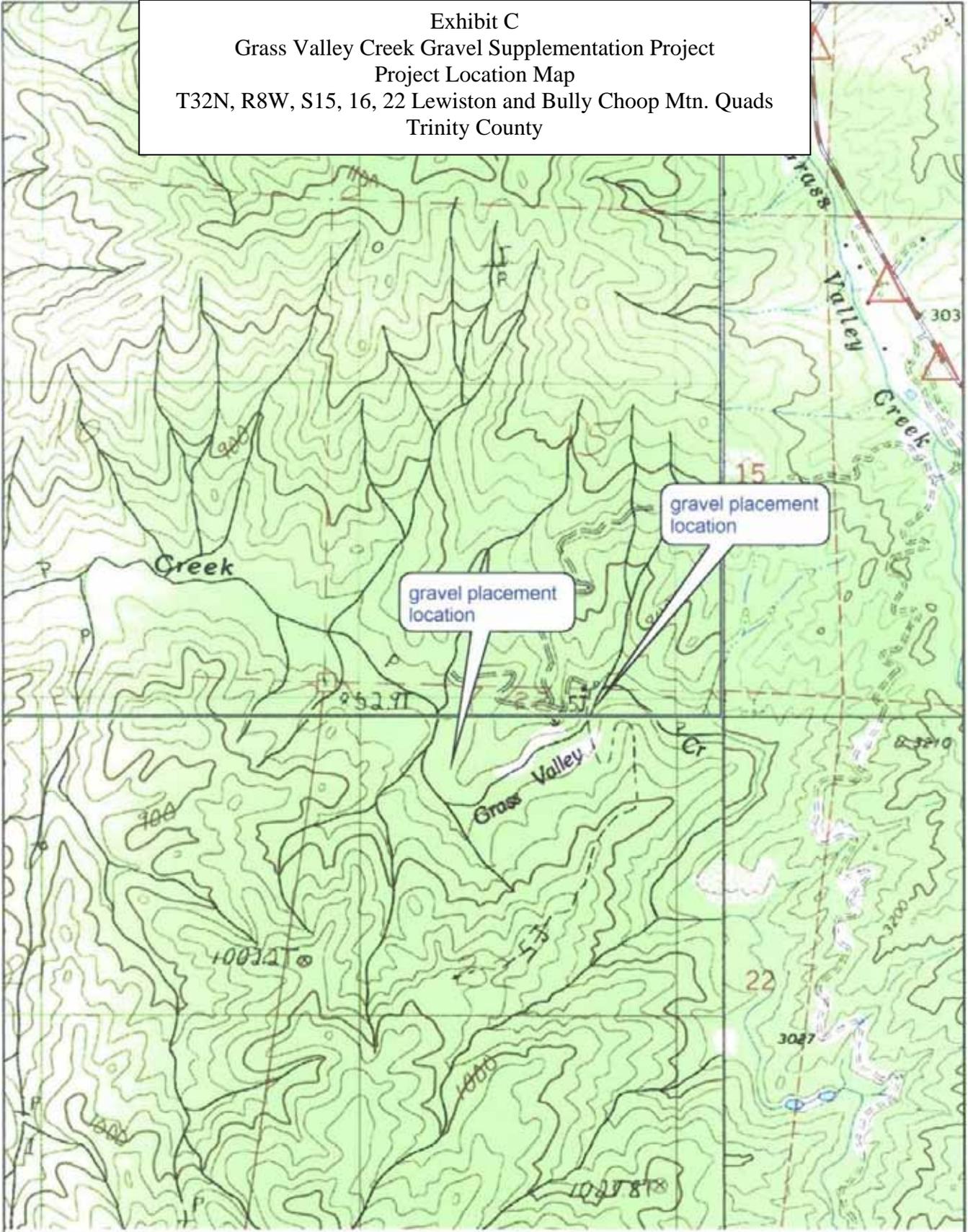
- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
 - Design spec achieved
 - Fish movement/abundance
 - Gravel movement and utilization

Instream Habitat Projects (HI)

- Description of instream treatments used, including site locations referenced to an established landmark, number of treatment sites, and any modifications to site/treatment design.
- Miles of stream treated with spawning gravel placement
- Cubic yards of spawning gravel placed

12. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Grass Valley Creek Gravel Supplementation Project

Exhibit C
Grass Valley Creek Gravel Supplementation Project
Project Location Map
T32N, R8W, S15, 16, 22 Lewiston and Bully Choop Mtn. Quads
Trinity County



California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Lesiston and Bully Choop Mtn Quads and Surrounding Quads for:

Grass Valley Creek Gravel Supplementation Project

T32N R8W S 15, 16 and 22

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Alkali Seep	CTT45320CA			G3	S2.1	
2 American (=pine) marten <i>Martes americana</i>	AMAJF01010			G5	S3S4	
3 American badger <i>Taxidea taxus</i>	AMAJF04010			G5	S4	SC
4 Brandegee's eriastrum <i>Eriastrum brandegeeeae</i>	PDPLM03020			G3	S3.2	1B.2
5 California wolverine <i>Gulo gulo</i>	AMAJF03010		Threatened	G4	S2	
6 Central Valley spring-run chinook salmon ESU <i>Oncorhynchus tshawytscha spring-run</i>	AFCHA0205A	Threatened	Threatened	G5	S1	
7 Dudley's rush <i>Juncus dudleyi</i>	PMJUN01390			G5	S2.3?	2.3
8 English Peak greenbriar <i>Smilax jamesii</i>	PMSMI010D0			G2	S2	1B.3
9 Heckner's lewisia <i>Lewisia cotyledon var. heckneri</i>	PDPOR04052			G4T2	S2.2	1B.2
10 Howell's alkali grass <i>Puccinellia howellii</i>	PMPOA531A0			G1	S1.1	1B.1
11 Klamath Mountain catchfly <i>Silene salmonacea</i>	PDCAR0U2D0			G1G2	S1S2.2	1B.2
12 Niles' harmonia <i>Harmonia doris-nilesiae</i>	PDAST650L0			G2	S2.1	1B.1
13 Northern Interior Cypress Forest	CTT83220CA			G2	S2.2	
14 Oregon fireweed <i>Epilobium oreganum</i>	PDONA060P0			G2	S2.2	1B.2
15 Oregon snowshoe hare <i>Lepus americanus klamathensis</i>	AMAEB03011			G5T3T4Q	S2?	SC
16 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
17 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
18 Regel's rush <i>Juncus regelii</i>	PMJUN012D0			G4?	S1.3?	2.3
19 Siskiyou fireweed <i>Epilobium siskiyouense</i>	PDONA06100			G3	S2.2	1B.3
20 Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010			G4	S2S3	SC
21 Trinity Spot <i>Punctum hannai</i>	IMGAS47080			G1	S1S3	
22 Yuma myotis <i>Myotis yumanensis</i>	AMACC01020			G5	S4?	
23 bald eagle <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S2	

California Department of Fish and Game

Natural Diversity Database

Selected Elements by Common Name - Portrait

Possible Species within the Lesiston and Bully Choop Mtn Quads and Surrounding Quads for:

Grass Valley Creek Gravel Supplementation Project

T32N R8W S 15, 16 and 22

United States

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 blushing wild buckwheat <i>Eriogonum ursinum var. erubescens</i>	PDPGN08632			G3G4T2	S2.3	1B.3
25 brown fox sedge <i>Carex vulpinoidea</i>	PMCYP03EN0			G5	S2.2	2.2
26 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
27 fringed myotis <i>Myotis thysanodes</i>	AMACC01090			G4G5	S4	
28 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	
29 great blue heron <i>Ardea herodias</i>	ABNGA04010			G5	S4	
30 hooded lancetooth <i>Ancotrema voyanum</i>	IMGAS36130			G1G2	S1S2	
31 long-eared myotis <i>Myotis evotis</i>	AMACC01070			G5	S4?	
32 northern clarkia <i>Clarkia borealis ssp. borealis</i>	PDONA05062			G3T2	S2.3	1B.3
33 northern goshawk <i>Accipiter gentilis</i>	ABNKC12060			G5	S3	SC
34 northern spotted owl <i>Strix occidentalis caurina</i>	ABNSB12011	Threatened		G3T3	S2S3	SC
35 oval-leaved viburnum <i>Viburnum ellipticum</i>	PDCPR07080			G5	S2.3	2.3
36 pallid bat <i>Antrozous pallidus</i>	AMACC10010			G5	S3	SC
37 porcupine sedge <i>Carex hystericina</i>	PMCYP036D0			G5	S1.1	2.1
38 silver-haired bat <i>Lasionycteris noctivagans</i>	AMACC02010			G5	S3S4	
39 thread-leaved beardtongue <i>Penstemon filiformis</i>	PDSCR1L2A0			G3	S3	1B.3
40 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC

EXHIBIT A
Lower Big Creek Diversion Project

The California Department of Fish and Game's, Red Bluff Fish Habitat Improvement Shop (Department) will improve fish passage and fish screening at a diversion located on Big Creek, a tributary to Hayfork Creek, in Trinity County, under the following conditions and terms:

1. Work will be implemented on Big Creek, approximately one mile upstream from the confluence of Hayfork Creek, Trinity County. The project is located in Township 31N, Range 11W, Section 6, of the Hayfork 7.5 Minute U.S.G.S. Quadrangle. Latitude 40.560; Longitude 123.148 as depicted in Exhibit B, Project Location Map, which is attached and made part of this agreement by this reference.
2. The Department will construct a diagonal, inclined, self-cleaning fish screen with piped bypass return to Big Creek. The screen will be located within the irrigation diversion ditch immediately below the point of diversion of Big Creek. The screen will be constructed to adequately screen 15 cubic feet per second (cfs) while meeting DFG and NOAA Fisheries criteria for fish screens. The screen design will be similar to that of proven Department built and operated fish screens within the region. It will be equipped with a paddle wheel driven cleaning system, and 3/32 inch perforated plate screening material.
3. The Department will improve fish passage at the point of diversion by installing a new adjustable head gate and roughened channel. The construction of a roughened channel will eliminate the need to seasonally install a boulder diversion structure while providing adult and juvenile fish passage at the point of diversion. The installation of a new head gate will allow the diversion to be regulated to ensure that diversion flows do not exceed those allowed by water rights.
4. Work in flowing streams is restricted to June 15 through October 31. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.
5. The Department will not proceed with on the ground implementation until all necessary permits and consultations are secured.
6. Fish screen and fish passage design/plans shall be developed by the Department of Fish and Game's Fisheries Engineering Team and work implemented by the Department's Red Bluff Fish Habitat Improvement Shop (Screen Shop).
7. The fish screening project will follow guidelines developed by DFG and NOAA Fisheries as described in Appendix S, June 2000 Version, Third Edition, *California Salmonid Stream Habitat Restoration Manual*, Flosi et al.

8. The fish passage project will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for fish passage as described in the Third Edition, Volume II, Parts IX and Part XII, of the *California Salmonid Stream Habitat Restoration Manual*.
9. If the project requires dewatering of the site, and the relocation of salmonids, the Department will implement the following measures to minimize harm and mortality to listed salmonids:
 - Fish relocation and dewatering activities shall only occur between July 1 and October 31 of each year.
 - The Department shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
 - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.
 - The Department will record all fish relocation data on a standardized form.
 - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
10. Upon completion of the project, the Department shall develop a project report. The report shall include, but not necessarily be limited to the following information:
 - Project name
 - Geographic area (e.g., watershed name)
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
 - Project start and end dates and the number of person hours expended
 - Labeled before and after photographs of any restoration activities and techniques
 - Specific project access using public and private roads and trails, with landowner name and address
 - Complete as built project description
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (SC, HB & WD) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project

- Type of monitoring included in the project
 - Design spec achieved
 - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Passage Improvement Projects (HB):

- Miles of stream treated
- Number of rocked fords placed
- Number of barriers other than culverts treated for fish passage.
- Type(s) of barriers treated, select from: diversion dam; push-up dam; wood or concrete dam; weir; logs; or debris.
- Number of miles made accessible by removing barriers other than culverts.
- Number of measuring weirs installed.

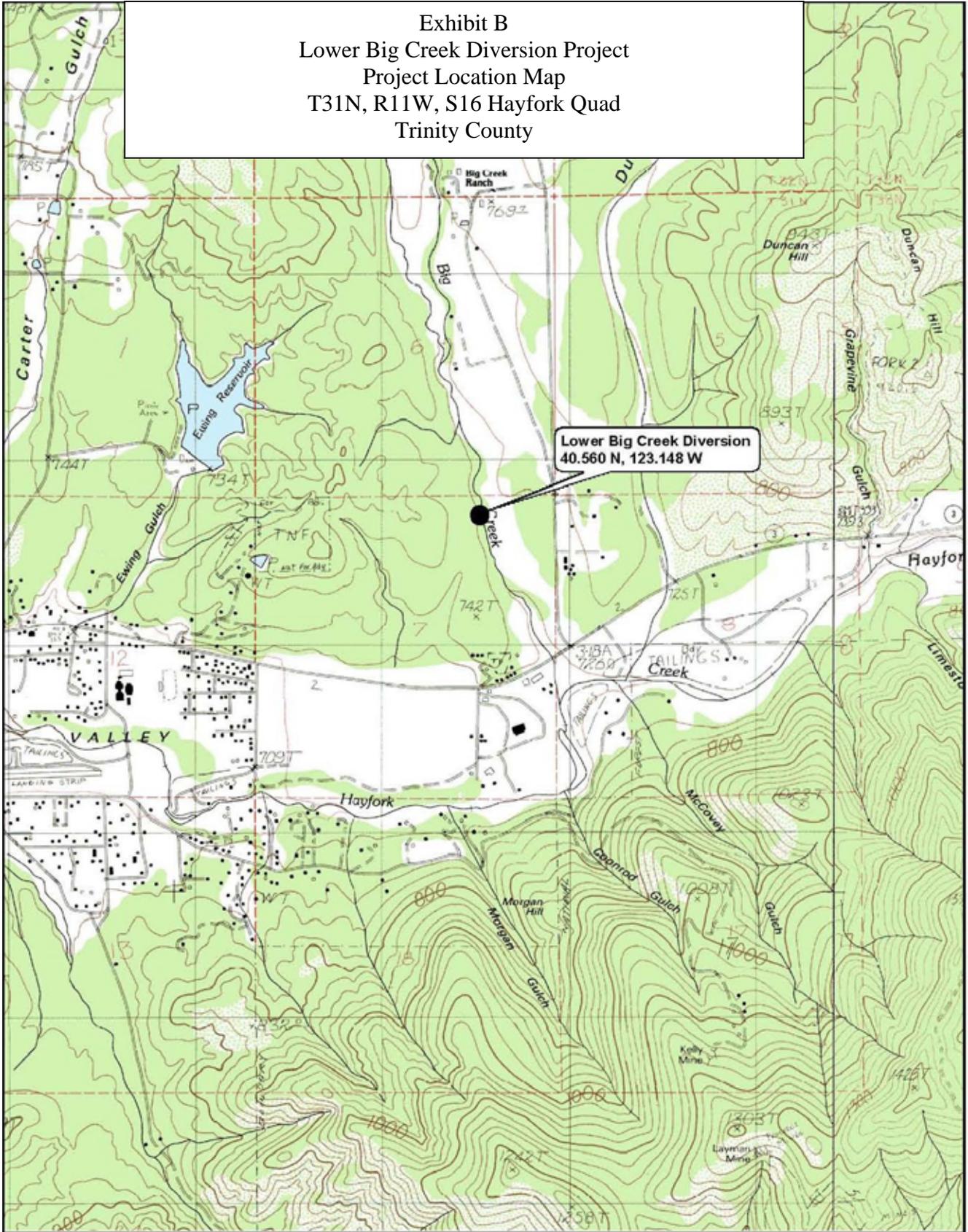
Fish Screen Projects (SC)

- Miles of stream treated
- Number of fish screens installed / modified
- Flow rate in cfs of diversions treated
- Acre-feet of water protected by screens

Instream Flow Projects (WD)

- Miles of stream protected for adequate flow
- Flow rate in cfs of water conserved
- Start date of return flow to the stream
- End date of return flow to the stream
- Number of flow gages installed.

Exhibit B
Lower Big Creek Diversion Project
Project Location Map
T31N, R11W, S16 Hayfork Quad
Trinity County



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
Lower Big Creek Diversion Project

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 American badger <i>Taxidea taxus</i>	AMAJF04010			G5	S4	SC
2 Big Bar hesperian <i>Vespericola pressleyi</i>	IMGASA4170			G1	S1	
3 California wolverine <i>Gulo gulo</i>	AMAJF03010		Threatened	G4	S2	
4 Central Valley spring-run chinook salmon ESU <i>Oncorhynchus tshawytscha spring-run</i>	AFCHA0205A	Threatened	Threatened	G5	S1	
5 Heckner's lewisia <i>Lewisia cotyledon var. heckneri</i>	PDPOR04052			G4T2	S2.2	1B.2
6 Humboldt marten <i>Martes americana humboldtensis</i>	AMAJF01012			G5T2T3	S2S3	SC
7 Leech's chaetarthrian water scavenger beetle <i>Chaetarthria leechi</i>	IICOL5T010			G1?	S1?	
8 Natural Bridge megomphix <i>Megomphix californicus</i>	IMGASB2010			G1G2	S1S2	
9 Niles' harmonia <i>Harmonia doris-nilesiae</i>	PDAST650L0			G2	S2.1	1B.1
10 Oregon fireweed <i>Epilobium oreganum</i>	PDONA060P0			G2	S2.2	1B.2
11 Oregon snowshoe hare <i>Lepus americanus klamathensis</i>	AMAEB03011			G5T3T4Q	S2?	SC
12 Pacific fisher <i>Martes pennanti (pacifica) DPS</i>	AMAJF01021	Candidate	unknown code...	G5	S2S3	SC
13 Pacific tailed frog <i>Ascaphus truei</i>	AAABA01010			G4	S2S3	SC
14 Stebbins' harmonia <i>Harmonia stebbinsii</i>	PDAST650K0			G2	S2.2	1B.2
15 Townsend's big-eared bat <i>Corynorhinus townsendii</i>	AMACC08010			G4	S2S3	SC
16 Tracy's eriastrum <i>Eriastrum tracyi</i>	PDPLM030C0		Rare	G1Q	S1.1	1B.2
17 Trinity bristle snail <i>Monadenia infumata setosa</i>	IMGASC7080		Threatened	G2T2	S2	
18 Trinity shoulderband <i>Helminthoglypta talmadgei</i>	IMGASC2630			G1G3	S1S3	
19 Wawona riffle beetle <i>Atractelmis wawona</i>	IICOL58010			G1G3	S1S2	
20 coast fawn lily <i>Erythronium revolutum</i>	PMLIL0U0F0			G4	S3	2.2
21 coast sidalcea <i>Sidalcea oregana ssp. eximia</i>	PDMAL110K9			G5T1	S1.2	1B.2
22 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
23 golden eagle <i>Aquila chrysaetos</i>	ABNKC22010			G5	S3	

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 Natural Diversity Database
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Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 hooded lancetooth <i>Ancotrema voyanum</i>	IMGAS36130			G1G2	S1S2	
25 osprey <i>Pandion haliaetus</i>	ABNKC01010			G5	S3	
26 pale yellow stonecrop <i>Sedum laxum ssp. flavidum</i>	PDCRA0A0L2			G5T3Q	S3.3	4.3
27 summer-run steelhead trout <i>Oncorhynchus mykiss irideus</i>	AFCHA0213B			G5T4Q	S2	SC
28 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
29 white-flowered rein orchid <i>Piperia candida</i>	PMORC1X050			G3	S3.2	1B.2
30 woolly meadowfoam <i>Limnanthes floccosa ssp. floccosa</i>	PDLIM02043			G4T4	S3.2	4.2